Montana Fish, Wildlife & Parks

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Ref:DV162-03-03
August 27, 2003

To: Rick Vredenburg, P O Box 990, Eureka, 59917
Dept. of Environmental Quality, Planning, Prevention & Assistance, PO Box 200901, Helena, 59620
Dept. of Environmental Quality, Permitting Compliance, PO Box 200901, Helena, 59620-0901
Montana Fish, Wildlife and Parks: Director's Office – Reg Peterson; Fisheries Division - Karen Zackheim; Legal Unit - Brandi Fisher; Endangered Species Coordinator - Arnold Dood; Nongame Coordinator - Heidi Youmans; Native Species Coordinator, Fisheries - Robert Snyder; Kalispell FWP.
Montana Historical Society, State Historic Preservation Office, PO Box 201202, Helena, 59620-1202
Montana State Library, 1515 East Sixth Ave., Helena, 59620-1800
Wayne Hirst, Montana State Parks Foundation, PO Box 728, Libby, 59923
George Ochenski, PO Box 689, Helena, 59624
DNRC, NWLO, Ted Giesey/Jon Dahlberg, 2250 Hwy 93 N, Kalispell, 59901
Friends of the Wild Swan, Arlene Montgomery, PO Box 5103, Swan Lake, 59911
Jim Mann, Daily Inter Lake, 727 E. Idaho, Kalispell, 59901
Tribal Historic Preservation Office, Confederated Salish and Kootenai Tribes, PO Box 278 Pablo, 59855
Lincoln County Commissioners, 512 California Avenue, Libby, 59923
Rep. Rick Maedje, PO Box 447, Fortine, 59918-0447
Sen. Aubyn Curtiss, PO Box 216, Fortine, 59918
Glen Anacker, Trout Unlimited, PO Box 638, Kalispell, 59903-0638
Kirk Sullivan, NRCS, 655 Hwy. 93 North, Eureka, 59917
Kootenai River Network, Carolyn Stamy, PO Box 491, Libby, 59923
Janet Ellis, MT Audubon, Box 595, Helena, 59624
Tim Bodurtha, 780 Creston Hatchery Road, Kalispell, 59937
Jinny Emerson, 5550 Hwy 93 S, Eureka, 59917
Richard Hanson, 2670 Milo Way, Holaday, UT 84117

Ladies and Gentlemen:

Fish, Wildlife & Parks, Region One, has completed an environmental assessment (EA) for a stream restoration project tentatively planned to stabilize 9,100 feet of stream channel on Therriault Creek (upstream from Highway 93). This proposed project is located on property owned by Rick Vrendenburg, approximately 6 miles southeast of the town of Eureka in Lincoln County.

Comments were received from three interested parties during the public review period and are addressed in the decision document. There were no changes to the draft EA; therefore, the draft becomes the final EA. A copy of the decision document is enclosed. Please direct any questions or comments to Jim Dunnigan, FWP Fisheries Biologist, 475 Fish Hatchery Road, Libby, MT 59923, (406) 293-4161, or e-mail to dunnigan@libbyfieldstation.com.

Sincerely,

Daniel P. Vincent
Regional Supervisor

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Enclosure

Lincoln
Future Fisheries

ENVIRONMENTAL ASSESSMENT AND DECISION NOTICE FOR THERRIAULT CREEK CHANNEL RESTORATION PROJECT

August 26, 2003

Project Proposal and Justification:

Therriault Creek provides important spawning and rearing habitat for westslope cutthroat trout and rearing habitat for bull trout. Therriault Creek also provides water for agriculture and other riparian-dependent resources. This stream is currently on the Montana Water Quality Limited Segment List as an impaired stream. The state of Montana has proposed that Therriault Creek be a high priority for Total Mean Daily Load allocation (TMDL). Past logging in the upper reaches of the drainage, livestock grazing practices, channelization, and other land management activities contributed to the instability of the channel. Biological productivity in lower Therriault Creek is currently functioning substantially lower than its potential. The section of Therriault Creek within the proposed project area has been extensively modified through land cover disturbance, riparian vegetation clearing, and physical stream straightening. This past activity has resulted in accelerated bank erosion, channel degradation, and poor fish habitat. Currently the stream channel is incised approximately six to eight feet relative to the surrounding topography and as a result has lowered the base level of the local water table. The current condition of lower Therriault Creek within the project area provides poor habitat for native salmonids.

Montana Fish, Wildlife & Parks (FWP), in cooperation with the Kootenai River Network (KRN), will restore a 4,500-foot section of Therriault Creek to a properly functioning channel with the appropriate pattern, profile, and dimensions that will enhance habitat for adult and juvenile salmonids. This project proposes to reconstruct a total of 9,100 feet of entirely new stream channel that will restore the proper dimension, pattern, and profile of the channel. This action will nearly double the stream length within the project area due to the increased meander frequency. Additionally, the project will restore approximately 55 acres of previously drained wetlands. The proposed project calls for installing root wads and tree revetments, and planting riparian shrubs along the margin of the channel. Cross vanes constructed primarily from trees and cobble patch structures will control channel grade in the project.

The intent of the project is to: 1) reduce the sediment sources and bank erosion throughout the project area by incorporating stabilization techniques that function naturally with the stream and decrease the amount of stress on the stream banks, 2) convert the channelized portions of stream into a channel type that is self-maintaining and will accommodate floods without major changes in channel pattern or profile, 3) use natural stream stabilization techniques that will allow the stream to adjust slowly over time and be representative of a natural stream system, 4) improve fish habitat for native salmonids, and 5) improve stream flow in Therriault Creek.

Location of Project:

This project will be conducted on Therriault Creek, located approximately 6 miles southeast of the town of Eureka within Township 36 North, Range 26 West, Section 3 and Township 35 North, Range 26 West, Section 34, in Lincoln County. The project site is located on property owned by Rick Vredenburg.

Environmental and Social Impacts of Project:

There will be short-term increases in turbidity during the project construction phase. During construction, all reasonable and applicable best management practices will be employed to minimize sedimentation to Therriault Creek. For example, we will minimize turbidity by 1) scheduling construction to occur during a low flow period, and 2) constructing approximately 9,100 feet of new channel in two phases. The first phase will occur during the spring of 2004, at which time the majority of the construction will take place in the dry. A substantial revegetation effort will also take place at this time. The stream will remain in the present channel for approximately one year after the first construction phase is complete in order to allow the newly planted vegetation to become fully established and stabilized. The second construction phase will occur during the early spring of 2005. At this time the stream will be routed into the new stream channel 1) using pumps to dewater areas as necessary during construction of bank revetment and instream structures and 2) filtering water across vegetated floodplain areas that drain away from the active channel during construction. We expect that any short-term increases in turbidity will not substantially adversely impact the aquatic biota within Therriault Creek.

Short-term impacts associated with this project will be mitigated by the long-term benefits. Soils along the stream margin that will be disturbed during channel construction will be quickly stabilized by proposed revegetation efforts. Overall, the project is expected to reduce bank erosion and improve channel stability by restoring a degraded portion of the channel to a proper dimension, pattern, and profile, and by reestablishing a healthy riparian zone. Likewise, riparian vegetation and cover would experience minor disturbance during the period of construction. However, proposed revegetation efforts will ultimately improve the riparian community and the overall aesthetics within this area. We expect that these restoration efforts and associated instream structures will provide stream gradient control, fish habitat, and interim protection of the reconstructed streambanks. The project will improve salmonid rearing and migration conditions by increasing the frequency and quality of pool habitat, stabilizing eroding stream banks and shifting stream channels, lowering summer water temperatures, and increasing the abundance and complexity of instream cover. These habitat improvements were designed to increase the long-term carrying capacity and productivity of local salmonid populations.

Public Involvement:

In compliance with the Montana Environmental Policy Act, an environmental assessment was prepared and circulated for public comment from May 28 through June 27, 2003. Notices were advertised in two local newspapers, and notification was mailed to local conservation groups, local timber companies, selected businesses, and natural resource agencies. Copies of the EA were made available at three local libraries, the Montana FWP Region 1 headquarters in Kalispell, and the Montana FWP internet website. We received comments from three interested parties: the Montana Department of Environmental Quality (MT DEQ), the Montana Wildlife Federation, and Montana Representative Rick Maedje. The comments and our responses are summarized below.

MT Department of Environmental Quality Comment

Comment:

Overall, this is a great project relative to bull trout issues and repairing an impaired water body. The only thing I would suggest you consider is eliminating many of the cross channel vanes and constructing them mostly with wood. The cobble patch technique should provide your grade control. This would be a good opportunity to compare the no-vane versus vane approach and determine if the resources needed to build a vane might be used elsewhere.

Response:

Montana FWP agrees with this comment. One of the primary goals of this project is to minimize hard structure placement and rely on softer techniques, including vegetation and small diameter, woody material. The conceptual design for this project does not include the use of rock/boulder cross vanes. Instead, approximately 11 cobble patches and 5 log cross vanes will be installed to serve as grade control and enhance fisheries habitat.

Montana Wildlife Federation Comment

Comment:

Upon examining this document (Environmental Assessment), it is encouraging to see a project of this nature. Stream channelization has been a significant cause of deterioration of fish habitat in Montana, possibly the number two reason, behind stream dewatering, for reduction of fish productivity in otherwise suitable water. Although implied, no specific reference was made to restore gravel beds to provide for spawning areas. Perhaps the EA should have stated by adding root wads and lowering the gradient of the stream that gravel beds for spawning would be a desirable end product of this action. We recognize the positive nature of this project and do not mean to imply any undue criticism of the document. Montana Wildlife Federation concurs with FWP that Alternative One be implemented and that this project go forward. If there was a downside to this

project, that would be we prefer to see more miles of Therriault Creek and other similar streams suffering from channelization be considered for exactly this kind of habitat restoration.

Response:

Montana FWP agrees with this comment. Stream channelization of many of Montana's streams has reduced the biological productivity by reducing the quality and quantity of spawning and rearing habitats. The Therriault Creek restoration project will likely improve both the quality and quantity of spawning and rearing habitat within this section of Therriault Creek. Montana FWP's long-term restoration plan for the Montana portion of the Kootenai River basin includes several other projects of this nature. Similar public scoping documents and notifications will be made available as these projects progress.

Representative Rick Maedje's Comments

Comment:

The proposal should not be approved or begun until the interim study on the evaporate effect of creating new ponds or marshes is completed and the legislature has an opportunity to carefully craft guidelines which protect agricultural water rights of those downstream.

Response:

This section of Therriault Creek has a lengthy history of land management activities that date back to at least the early 1900s. Based on review of the 1947 aerial photo series, we believe that most of the historic wetlands present within the proposed project area were physically removed or converted to agricultural land prior to 1947. Further review of the next available aerial photo series in 1963 show further substantial reduction in streamside vegetation that occurred between 1947 and 1963, and was likely due to grazing, stream straightening, and/or direct removal. Presently, the stream channel within the project area has down-cut approximately six-to-eight feet. The proposed project is designed to raise the water table within the project area, thereby increasing soil moisture and productivity of the land and allowing the stream to regain access to its floodplain. The higher water table will result in a more effective storage of ground water within the area. We anticipate that flows in lower Therriault Creek will increase as a result of the project, especially during low flow periods. The small amount of evaporative loss from the restored wetlands will be more than offset by these improvements.

FWP concurs with the comment that the referenced Legislative study could be helpful in crafting policy related to new ponds and wetland developments in Montana. FWP has been one of the primary participants in a dialogue with DNRC on issues associated with proliferation of private ponds in a semi-arid landscape and the related effect on downstream flows. FWP has worked with DNRC staff to

craft their internal guidance on these issues, including how to incorporate evaporative effects. State policy remains unclear on water rights associated with new pond creation and related cumulative effects. However, the Therriault Creek project will restore a degraded stream channel, and DNRC policy is clear on this issue. Even if flow patterns may change slightly as a result of a restoration project, no water rights are needed for any such associated changes.

Comment:

The creation of a marsh plain on the Therriault Creek will result in a reduction of in-stream flows due to the evaporate effect of pooling or "ponding" water. This is a change in use in the senior water right on Therriault Creek, and the FWP plan for this proposal must include a contingency for low flow years which has as its priority the suppliance of water to the users downstream from the proposed site and not the suppliance of water to the artificial marsh plain upstream.

Response:

As stated above, this project is expected to improve downstream delivery of water in Therriault Creek. The proposed restoration project will attempt to restore this section of Therriault Creek to a near historic state. The project design will incorporate a two-stage channel design. The bankfull stage elevation is the stream discharge that exceeds the stream channel capacity. The flood plain stage is beyond the bankfull stage and is accessed at flows that exceed the average stream channel capacity. Water would only top the stream banks when the water exceeds the bankfull stage during high flow events. During periods of low flow, the restored wetlands would not have a surface connection to the stream. As we stated above, the proposed project is designed to raise the local water table within the project area, thereby increasing soil moisture and productivity of the land. The higher water table will further result in a more effective storage of ground water within the area that will likely increase flows in lower Therriault Creek, especially during low flow periods within the stream.

There are no documented water users downstream of the project location; the owner of the land where the project is proposed is the senior water right holder on Therriault Creek. The landowner wishes to continue some irrigation with his senior rights and will likely convert any remaining portion of the senior rights to instream flow to ensure his water rights are not placed in jeopardy due to non-use. If there are downstream water rights holders, in general they cannot demand that an upstream landowner maintain a stream channel in a degraded condition; and as mentioned above, DNRC does not require new or changed water rights for a restoration project.

Comment:

The FWP should not manage a senior water right – such proposals should be managed by the agricultural water rights holders downstream. I would request FWP create such a management "team" for this project, and include the

management team of the Glen Lake Irrigation District (GLID) – those citizens are the experts in the area.

Response:

Montana FWP will not be managing any water rights for this project. The present landowner is simply converting a portion of his agricultural water right to instream use and will continue to manage his water rights. FWP will consult with the landowner to determine if he wishes assistance from a water right management team as suggested in the comment. FWP and other agency staff continue to work closely with GLID on water management in Therriault Creek, including coordinating this project with GLID's ongoing upstream diversion structure improvement and how much water that structure needs to bypass to satisfy downstream senior rights. The overall objective of this restoration project is to restore lower Therriault Creek to a properly functioning stream that improves habitat for fisheries and wildlife. This project will not impact the ability of present or future downstream water users to exercise their legal right to appropriate water from Therriault Creek.

Decision notice:

Based on the comments we received during the public comment period for the draft environmental assessment for the Therriault Creek Channel Restoration Project, we have prepared the final environmental assessment for this project. Due to the urgent need to improve native salmonid rearing and migration habitat, reduce sedimentation, and promote bank stability in lower Therriault Creek, I recommend that the proposed project be implemented as designed.

Daniel P. Vincent, Supervisor
MT Fish, Wildlife & Parks, Region One

8/27/03
Date